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| EXAMINER | | | | |
| DWITVEDI, MAHESH H | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/720,787

Applicant(s)

TREPES, DAVID WILLIAM

Examiner

MAHESH H. DWIVEDI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-25, 29-32 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-25, 29-32 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/5/2006 has been entered.

Remarks

2. Receipt of Applicant's Amendment, filed on 02/27/2008, is acknowledged. The amendment includes the amending of claims 1-9, 11-18, 21-24, 29-32, and 34, and the cancellation of claims 10, 26-28, and 33. The examiner further wishes to state that foreign priority of 09/19/2002 is accepted in the instant application.

The examiner further wishes to state that there are several published patent applications (PGPUB) with different inventive entities which contain substantial similarities in drawings and specifications with the instant application (See Trepress et al. and Thorpe cited published patent applications).

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-7, 9-11, 14-25, 29-32, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kohonen et al.** (Article entitled "Self Organization of a Massive Document Collection") in view of **Derthick** (Article entitled "Interfaces for Palmtop Image Search") and in view of **Schultz et al.** (U.S. PGPUB 2003/0061211).

6. Regarding claim 1, **Kohonen** teaches a video processing apparatus comprising:
A) a memory configured to store a set of distinct information items (Page 575, Section B, Figures 5-6); and

B) an information retrieval system configured to map the set of distinct information items to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes (Page 574, Figures 5-6), the information retrieval system includes:

C) a user control configured to define a first search criterion for selecting information items (Page 584, Figure 6);

E) a detector configured to detect positions of nodes within the array of nodes, to which the selected information items have been mapped (Page 584, Figures 1, 4-6); and

F) a graphical user interface configured to display display points within a display area on a user display (Page 584, Figures 5-6);

G) by grouping the display points in accordance with the positions of the nodes to which the selected information items have been mapped (Page 584, Figures 1, 4-6).

The examiner notes that **Kohonen** teaches "a memory configured to store a set of distinct information items" as "develop the final software for our method" (Page 575, Section B) and "our system operate in real time and fit medium-sized computers" (Page 575, Section B). The examiner further notes that **Kohonen** teaches "an information retrieval system configured to map the set of distinct information items to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes" as "documents are presented as points on a two-dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations" (Page 574). The examiner further notes that **Kohonen** teaches "a user control configured to define a first search criterion

for selecting information items” as “keyword search” (Page 584). The examiner further notes that Figure 6 describes an interface which displays retrieved search results based on the search constraint. The examiner further notes that **Kohonen** teaches “**a detector configured to detect positions of nodes within the array of nodes, to which the selected information items have been mapped**” as “Select labels automatically to characterize map regions” (Figure 1, Step 3). The examiner further notes that the retrieved results depicted in Figures 5 and 6 clearly show positions of nodes retrieved from a query, and located in a defined region within the 2d map. The examiner further wishes to state that Figure 4 clearly shows the information items mapped to respective regions designated by different categories (see Chemistry and Building). The examiner further notes that **Kohonen** teaches “**a graphical user interface configured to display display points which are at positions within a display area on a user display**” as the retrieved results depicted in Figure 6. The examiner further notes that **Kohonen** teaches “**by grouping the display points in accordance with the positions of the nodes to which the selected information items have been mapped**” as “Select labels automatically to characterize map regions” (Figure 1, Step 3). The examiner further notes that the retrieved results depicted in Figures 5 and 6 clearly show positions of nodes retrieved from a query, and located in a defined region within the 2d map. The examiner further wishes to state that Figure 4 clearly shows the information items mapped to respective regions designated by different categories (see Chemistry and Building).

Kohonen does not explicitly teach:

- A) related to contents of items of video material;
- H) the graphical user interface further configured to display in a sequence in time a plurality of representations of the selected information items.

Derthick, however, teaches “**related to contents of items of video material**” as “video retrieval, our current interfaces segment video into shots, and represent them with single frames” (Page 1, Section 1, Figure 1) and “**the graphical user interface also displaying in a sequence in time a plurality of representations of the selected information items**” as “RSVP slideshow” (Page 1, Section 2) and Figure 1.

The examiner notes that Figure 1 depicts an RSVP image show on an graphical user interface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Kohonen and **Derthick** do not explicitly teach:

D) and a second search criterion, the second search criterion defining a subset of the array of nodes such that only information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected.

Schultz, however, teaches "and a second search criterion, the second search criterion defining a subset of the array of nodes such that only information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected" as "According to another aspect of the invention, geographically defined user queries may be composed by the client using textual information and/or spatial search information. Spatial search information may be selected, e.g., by the user highlighting a desired point or area on a displayed map. A combination search including text and spatial information may also be used" (Paragraph 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Schultz's** would have allowed **Kohonen's** and **Derthick's** to provide more specific results for search engines via user-defined parameters, as noted by **Schultz** (Paragraph 8).

Regarding claim 2, **Kohonen** further teaches a video processing apparatus comprising:

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A) wherein the graphical user interface is operable to display a two-dimensional display array of said display points (Page 574, Figures 5-6).

The examiner notes that **Kohonen** teaches “**wherein the graphical user interface is operable to display a two-dimensional display array of said display points**” as “documents are presented as points on a two-dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations” (Page 574).

Regarding claim 3, **Kohonen** further teaches a video processing apparatus comprising:

A) wherein the information retrieval system is further configured to add a dither component so that substantially identical information items tend to map to closely spaced but different positions in the array (Page 584, Figures 5-6).

The examiner notes that the Figure 6 of **Kohonen** depicts very similar topics closely coupled together in the large grid.

Regarding claim 4, **Kohonen** further teaches a video processing apparatus comprising:

A) wherein the information retrieval systems maps the information items to the respective nodes in the array of nodes on the basis of a feature vector derived from each information item (Page 574, Abstract).

The examiner notes that **Kohonen** teaches “**wherein the information retrieval systems maps the information items to the respective nodes in the array of nodes on the basis of a feature vector derived from each information item**” as “the feature vectors for the documents statistical representations of their vocabularies are used” (Page 574, Abstract) and “Any of the basic projection methods can be used to organize textual data items, such as documents, if their contents are described statistically as some kind of metric feature vectors” (Page 574, Section B).

Regarding claim 5, **Kohonen** further teaches a video processing apparatus comprising:

A) wherein which the feature vector for an information item represents a set of frequencies of occurrence, within that information item, of each of a group of information features (Pages 576, 581).

The examiner notes that **Kohonen** teaches "**wherein which the feature vector for an information item represents a set of frequencies of occurrence, within that information item, of each of a group of information features**" as "in the basic vector-space model [38] the stored documents are represented as real vectors in which each component corresponds to the frequency of occurrence of a particular word in the document" (Page 576, Section A).

Regarding claim 6, **Kohonen** further teaches a video processing apparatus comprising:

A) wherein the information items comprise textual information, the feature vector for an information item represents a set of frequencies of occurrence, within that information item, of each of a group of words (Pages 576, 581).

The examiner notes that **Kohonen** teaches "**wherein the information items comprise textual information, the feature vector for an information item represents a set of frequencies of occurrence, within that information item, of each of a group of words**" as "in the basic vector-space model [38] the stored documents are represented as real vectors in which each component corresponds to the frequency of occurrence of a particular word in the document" (Page 576, Section A).

Regarding claim 7, **Kohonen** further teaches a video processing apparatus comprising:

A) wherein the information items comprise textual information, and the information retrieval systems maps the information items to the respective nodes by mutual similarity of at least a part of the textual information (Page 575).

The examiner notes that **Kohonen** teaches “**wherein the information items comprise textual information, and the information retrieval systems maps the information items to the respective nodes by mutual similarity of at least a part of the textual information**” as “The models are produced by a learning process that automatically orders them on the 2-D grid along with their mutual similarity” (Page 575, Section II).

Regarding claim 9, **Kohonen** further teaches a video processing apparatus comprising:

A) **wherein** the information items are pre-processed for mapping by excluding words occurring with less than a threshold frequency amongst the set of information items (Page 581).

The examiner notes that **Kohonen** teaches “**wherein the information items are pre-processed for mapping by excluding words occurring with less than a threshold frequency amongst the set of information items**” as “The words occurring less than 50 times in the whole corpus, as well as set of common words in a stopword list of 1335 words were removed” (Page 581, Section A).

Regarding claim 11, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) wherein the sequence in time is a serial visual presentation of the said representations.

Derthick, however, teaches “**wherein the sequence in time is a serial visual presentation of the said representations**” as “Rapid Serial Visual Presentation” (Page 1, Abstract) and Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 14, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) wherein the graphical user interface displays a plurality of streams of representations at the same time in respective display zones.

Derthick, however, teaches “**wherein the graphical user interface displays a plurality of streams of representations at the same time in respective display zones**” as “Rapid Serial Visual Presentation” (Page 1, Abstract), “large image grid was continuously visible for SD” (Page 1, Section 2) and Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 15, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) wherein the user control is further configured to select a representation from the plurality of representations, and the graphical user interface is further configured to display information related to the selected representation.

Derthick, however, teaches “**wherein the user control is further configured to select a representation from the plurality of representations, and the graphical user interface is further configured to display information related to the selected representation**” as “Rapid Serial Visual Presentation” (Page 1, Abstract), “large image grid was continuously visible for SD” (Page 1, Section 2) and Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 16, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) wherein said representations comprise images.

Derthick, however, teaches “**wherein said representations comprise images**” as “query image” (Page 1, Section 2, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 17, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) where said representations comprise text.

Derthick, however, teaches “**where said representations comprise text**” as “query text” (Page 1, Section 2, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia and text retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 18, **Kohonen** further teaches a video processing apparatus comprising:

A) wherein said representations comprise links to the information items represented thereby (Page 583, Figures 5-6).

The examiner notes that **Kohonen** teaches “**wherein said representations comprise links to the information items represented thereby**” as “clicking a point on

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the map display with a mouse, links to the document database, enable reading the contents of the documents" (Page 583, Figures 5-6).

The examiner notes that "clicking a point on the map display with a mouse, links to the document database, enable reading the contents of the documents" (Page 583, Figures 5-6) is analogous to **"wherein the said representation comprises links to the information items represented thereby"**.

Regarding claim 19, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) A portable data processing device comprising a video processing apparatus according to claim 1.

Derthick, however, teaches **"A portable data processing device comprising a video processing apparatus according to claim 1"** as "palmtop interfaces" (Page 1, Section 2, Figure 1) and "video retrieval, our current interfaces segment video into shots, and represent them with single frames" (Page 1, Section 1, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 20, **Kohonen** does not explicitly teach a video processing apparatus comprising:

A) Video acquisition and/or processing apparatus comprising a video processing apparatus according to claim 1.

Derthick, however, teaches **"Video acquisition and/or processing apparatus comprising a video processing apparatus according to claim 1"** as "video retrieval, our current interfaces segment video into shots, and represent them with single frames" (Page 1, Section 1, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 21, **Kohonen** teaches a method comprising:

- A) in which a set of distinct information items are mapped to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes (Page 574, Figures 5-6);
- B) defining a first search criterion for selecting information items (Page 584, Figures 5-6);
- D) detecting positions of nodes, within the array of nodes to which the selected information items have been mapped (Page 584, Figures 1, 4-6);
- E) displaying display points within a display area on a user display (Page 584, Figures 5-6);
- F) by grouping the display points in accordance with the positions of the nodes to which the selected information items have been mapped (Page 584, Figures 1, 4-6).

The examiner notes that **Kohonen** teaches “**in which a set of distinct information items are mapped to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes**” as “documents are presented as points on a two-dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations” (Page 574). The examiner further notes that **Kohonen** teaches “**defining a first search criterion for selecting information items**” as “keyword search” (Page 584). The examiner further notes that Figure 6 describes an interface which displays retrieved search results based on the search constraint. The examiner further notes that **Kohonen** teaches “**a detector configured to detect positions of nodes within the array of nodes, to which the selected information items have been mapped**” as “Select labels automatically to characterize

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map regions" (Figure 1, Step 3). The examiner further notes that the retrieved results depicted in Figures 5 and 6 clearly show positions of nodes retrieved from a query, and located in a defined region within the 2d map. The examiner further wishes to state that Figure 4 clearly shows the information items mapped to respective regions designated by different categories (see Chemistry and Building). The examiner further notes that **Kohonen** teaches **"displaying display points which are at positions within a display area on a user display corresponding to the selected information items"** as the retrieved results depicted in Figure 6. The examiner further notes that **Kohonen** teaches **"by grouping the display points in accordance with the positions of the nodes to which the selected information items have been mapped"** as "Select labels automatically to characterize map regions" (Figure 1, Step 3). The examiner further notes that the retrieved results depicted in Figures 5 and 6 clearly show positions of nodes retrieved from a query, and located in a defined region within the 2d map. The examiner further wishes to state that Figure 4 clearly shows the information items mapped to respective regions designated by different categories (see Chemistry and Building).

Kohonen does not explicitly teach:

- A) related to contents of items of video material
- G) displaying in a sequence in time a plurality of representations of the selected information items.

Derthick, however, teaches **"related to contents of items of video material"** as "video retrieval, our current interfaces segment video into shots, and represent them with single frames" (Page 1, Section 1, Figure 1) and **"displaying in a sequence in time a plurality of representations of the selected information items"** as "RSVP slideshow" (Page 1, Section 2) and Figure 1.

The examiner notes that Figure 1 depicts an RSVP image show on an graphical user interface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient

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multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Kohonen and **Derthick** do not explicitly teach:

C) and a second search criterion, the second search criterion defining a subset of the array of nodes such that only information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected.

Schultz, however, teaches “and a second search criterion, the second search criterion defining a subset of the array of nodes such that only information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected” as “According to another aspect of the invention, geographically defined user queries may be composed by the client using textual information and/or spatial search information. Spatial search information may be selected, e.g., by the user highlighting a desired point or area on a displayed map. A combination search including text and spatial information may also be used” (Paragraph 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Schultz’s** would have allowed **Kohonen’s** and **Derthick’s** to provide more specific results for search engines via user-defined parameters, as noted by **Schultz** (Paragraph 8).

Regarding claim 22, **Kohonen** further teaches a method comprising:

A) wherein the step of displaying displays a two-dimensional display array of said display points (Page 574, Figures 5-6).

The examiner notes that **Kohonen** teaches “**wherein the step of displaying displays a two-dimensional display array of said display points**” as “documents are presented as points on a two-dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations” (Page 574).

Regarding claim 23, **Kohonen** does not explicitly teach a method comprising:

A) wherein the sequence in time is a serial visual presentation of the representations.

Derthick, however, teaches “**wherein the sequence in time is a serial visual presentation of the representations**” as “Rapid Serial Visual Presentation” (Page 1, Abstract) and Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick’s** would have allowed **Kohonen’s** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 24, **Kohonen** further teaches a method comprising:

A) selecting a representation from the plurality of representations, and displaying information related to the selected representation (Page 584, Figures 5-6).

Regarding claim 25, **Kohonen** further teaches a method comprising:

A) A computer readable storage medium embedded with a computer program for making a computer perform the method according to claim 21 (Page 575, Section B, Figures 5-6).

The examiner notes that **Kohonen** teaches “**A computer readable storage medium embedded with a computer program for making a computer perform the method according to claim 21**” as “develop the final software for our method” (Page 575, Section B) and “our system operate in real time and fit medium-sized computers” (Page 575, Section B).

Regarding claim 29, **Kohonen** teaches a interface comprising:

A) a memory that stores a set of distinct information items (Page 575, Section B, Figures 5-6); and

B) an information retrieval system in which a set of distinct information items are mapped to respective nodes in an array of nodes by mutual similarity of the information

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items, so that similar information items map to nodes at similar positions in the array of nodes (Page 574, Figures 5-6)

C) a user control configured to define a first search criterion for selecting information items (Page 584, Figure 6);

D) and a second search criterion, the second search criterion defining a subset of the array of nodes such that only information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected;

E) a graphical user interface having a display area arranged for displaying display points within a display area (Page 584, Figures 5-6);

F) by grouping the display points in accordance with the positions of the nodes to which the selected information items have been mapped (Page 584, Figures 1, 4-6).

The examiner notes that **Kohonen** teaches “a memory that stores a set of distinct information items” as “develop the final software for our method” (Page 575, Section B) and “our system operate in real time and fit medium-sized computers” (Page 575, Section B). The examiner further notes that **Kohonen** teaches “an information retrieval system in which a set of distinct information items are mapped to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes” as “documents are presented as points on a two-dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations” (Page 574). The examiner further notes that **Kohonen** teaches “a user control configured to define a first search criterion for selecting information items” as “keyword search” (Page 584). The examiner further notes that Figure 6 describes an interface which displays retrieved search results based on the search constraint. The examiner further notes that **Kohonen** teaches “a graphical user interface having a display area arranged for displaying display points which are at positions within a display area corresponding to the selected information items” as the retrieved results depicted in Figure 6. The examiner further notes that **Kohonen** teaches “by grouping the display points in accordance with the

positions of the nodes to which the selected information items have been mapped" as "Select labels automatically to characterize map regions" (Figure 1, Step 3). The examiner further notes that the retrieved results depicted in Figures 5 and 6 clearly show positions of nodes retrieved from a query, and located in a defined region within the 2d map. The examiner further wishes to state that Figure 4 clearly shows the information items mapped to respective regions designated by different categories (see Chemistry and Building).

Kohonen does not explicitly teach:

- A) related to contents of items of video material; and
- G) the display area arranged to display in a sequence in time a plurality of representations of the selected information items.

Derthick, however, teaches "**related to contents of items of video material**" as "video retrieval, our current interfaces segment video into shots, and represent them with single frames" (Page 1, Section 1, Figure 1) and "**the graphical user interface also displaying in a sequence in time a plurality of representations of the selected information items**" as "RSVP slideshow" (Page 1, Section 2) and Figure 1.

The examiner notes that Figure 1 depicts an RSVP image show on an graphical user interface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Kohonen and **Derthick** do not explicitly teach:

- D) and a second search criterion, the second search criterion defining a subset of the array of nodes such that only information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected.

Schultz, however, teaches "**and a second search criterion, the second search criterion defining a subset of the array of nodes such that only**

information items that meet the first search criterion and are located in the subset of the array of nodes defined by the second search criterion are selected as

"According to another aspect of the invention, geographically defined user queries may be composed by the client using textual information and/or spatial search information. Spatial search information may be selected, e.g., by the user highlighting a desired point or area on a displayed map. A combination search including text and spatial information may also be used" (Paragraph 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Schultz's** would have allowed **Kohonen's** and **Derthick's** to provide more specific results for search engines via user-defined parameters, as noted by **Schultz** (Paragraph 8).

Regarding claim 30, **Kohonen** further teaches a interface comprising:

A) wherein graphical user interface displays a two-dimensional display array of the display points (Page 574, Figures 5-6).

The examiner notes that **Kohonen** teaches "**wherein graphical user interface displays a two-dimensional display array of the display points**" as "documents are presented as points on a two-dimensional (2-D) plane and the geometric relations of the image points of the documents represent their similarity relations" (Page 574).

Regarding claim 31, **Kohonen** does not explicitly teach a interface comprising:

A) wherein the sequence in time is a serial visual presentation of the said representations.

Derthick, however, teaches "**wherein the said sequence in time is a serial visual presentation of the said representations**" as "Rapid Serial Visual Presentation" (Page 1, Abstract) and Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient

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multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 32, **Kohonen** does not explicitly teach a interface comprising:

A) wherein the user control is further configured to select a representation from the plurality of representations, and the graphical user interface includes displaying information related to the selected representation.

Derthick, however, teaches “wherein the user control is further configured to select a representation from the plurality of representations, and the graphical user interface includes displaying information related to the selected representation” as “Rapid Serial Visual Presentation” (Page 1, Abstract), “large image grid was continuously visible for SD” (Page 1, Section 2) and Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

Regarding claim 34, **Kohonen** does not explicitly teach a interface comprising:

A) a presentation control configured to control the presentation of the sequence of representations.

Derthick, however, teaches “a presentation control configured to control the presentation of the sequence of representations” as “very large scrollbar” (Page 1, Section 2, Figure 1) and “countdown timer” (Page 1, Section 2, Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Derthick's** would have allowed **Kohonen's** to provide a method for having an efficient multiple image/multimedia retrieval based on RSVP premises, as noted by **Derthick** (Abstract).

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7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kohonen et al.** (Article entitled "Self Organization of a Massive Document Collection") in view of **Derthick** (Article entitled "Interfaces for Palmtop Image Search") and in view of **Schultz et al.** (U.S. PGPUB 2003/0061211) as applied to claims 1-7, 9-11, 14-25, 29-32, and 34, and further in view of **Doerre et al.** (U.S. Patent 6,446,061).

8. Regarding claim 8, **Kohonen**, **Derthick**, and **Schultz** do not explicitly teach a video processing apparatus comprising:

A) wherein the information items are pre-processed for mapping by excluding words occurring with more than a threshold frequency amongst the set of information items.

Doerre, however, teaches "wherein the information items are pre-processed for mapping by excluding words occurring with more than a threshold frequency amongst the set of information items" as "a solution to this problem the invention suggests to use names, terms, and general words, but to apply filtering to remove high-frequency terms and very low-frequency terms" (Column 18, lines 45-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Doerre's** would have allowed **Kohonen's**, **Derthick's**, and **Schultz's** to provide a method to prevent cluster coherence at the expense of meaningful cluster descriptors, as noted by **Doerre** (Column 18, lines 41-44).

9. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kohonen et al.** (Article entitled "Self Organization of a Massive Document Collection") in view of **Derthick** (Article entitled "Interfaces for Palmtop Image Search") and in view of **Schultz et al.** (U.S. PGPUB 2003/0061211) as applied to claims 1-7, 9-11, 14-25, 29-32, and 34, and further in view of **Bruijn et al.** (Article entitled "Patterns of Eye Gaze during Rapid Serial Visual Presentation").

10. Regarding claim 12, **Kohonen**, **Derthick**, and **Schultz** do not explicitly teach a video processing apparatus comprising:

A) wherein the graphical user interface displays representations one at a time in sequence in the same display zone.

Bruijn, however, teaches “wherein the graphical user interface displays representations one at a time in sequence in the same display zone” as “Keyhole RSVP” (Pages 1-2, Section I) and “We use the term Keyhole RSVP when all the images appear, in rapid sequence, in the same location at the same size” (Pages 1-2, Section I).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Bruijn’s** would have allowed **Kohonen’s**, **Derthick’s**, and **Schultz’s** to provide a method for multiple ways to express different RSVP configurations.

Regarding claim 13, **Kohonen** and **Derthick** do not explicitly teach a video processing apparatus comprising:

A) wherein the graphical user interface displays a plurality of said representations at the same time in respective display zones.

Bruijn, however, teaches “wherein the graphical user interface displays a plurality of said representations at the same time in respective display zones” as “Collage RSVP” (Page 2, Section I) and “a set of images being deposited, in rapid sequence, on a table top in such a way that five or six are visible at any one time” (Page 2, Section I).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Bruijn’s** would have allowed **Kohonen’s**, **Derthick’s**, and **Schultz’s** to provide a method for multiple ways to express different RSVP configurations.

Response to Arguments

11. Applicant’s arguments with respect to claims 1-9, 11-25, 29-32, and 34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure.

U.S. PGPUB 2003/0208485 issued to **Castellanos** on 06 November 2003. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. Patent 7,017,186 issued to **Day** on 21 March 2006. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2005/0027704 issued to **Hammond et al.** on 03 February 2005. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use preprocess words from documents).

U.S. Patent 5,864846 issued to **Voorhees et al.** on 26 January 1999. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use preprocess words from documents).

U.S. PGPUB 2003/0217335 issued to **Chung et al.** on 20 November 2003. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. Patent 7,031,909 issued to **Mao et al.** on 18 April 2006. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2004/0107221 issued to **Trepess et al.** on 03 June 2004. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2004/0056886 issued to **Trepess et al.** on 25 March 2004. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2004/0107194 issued to **Thorpe** on 03 June 2004. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2004/0130569 issued to **Thorpe** on 08 July 2004. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2004/0139105 issued to **Trepess et al.** on 15 July 2004. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

U.S. PGPUB 2006/0095852 issued to **Trepess et al.** on 04 May 2006. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

Article entitled "Analysis of Processes and Large Data Sets by a Self-Organizing Method" by **Kohonen**, dated 1999. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

Article entitled "A Self-organizing Semantic Map for Information Retrieval" by **Lin**, dated 07 July 1997. The subject matter disclosed therein is pertinent to that of claims 1-25 and 29-34 (e.g., methods to use SOM mapping).

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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May 06, 2008

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